

Appl. No. 10/591,879
Amdt. Dated November 1, 2007
Reply to Office Action of August 30, 2007

CLAIM AMENDMENTS

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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled).

Claim 12 (currently amended): A force sensor device, comprising:

a support of two arms carrying a longitudinal electromechanical element in form of a nanostructure, said nanostructure having ~~electric properties~~ an electrical property changeable in response to a mechanical deformation due to a force; and

~~an actuator~~ a moveable element disposed to transmit a force to said nanostructure;

each of said two arms formed with a cusp and said nanostructure mounted to said cusp.

Claim 13 (previously presented): The force sensor device according to claim 12, wherein said nanostructure is a structure selected from the group consisting of a nanotube, a carbon nanotube, a boron-nitride nanotube, and a quasi one-dimensional nanostructure.

Claim 14 (currently amended): The force sensor device according to claim 12, wherein the ~~changeable electric property~~ electrical property is a conductivity of said nanostructure.

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Claim 15 (previously presented): The force sensor device according to claim 12, wherein said support is a U-shaped support.

Claim 16 (cancelled):

Claim 17 (cancelled):

Claim 18 (currently amended): ~~The force sensor device according to claim 12, wherein said nanostructure is a first nanostructure and a second nanostructure is carried by said arms for compensating for environmental effects~~

A force sensor device, comprising:

a support of two arms carrying a longitudinal electromechanical element in form of a nanostructure, said nanostructure having an electrical property changeable in response to a mechanical deformation due to a force, said nanostructure defined as a first nanostructure;

a moveable element disposed to transmit a force to said nanostructure; and
a second nanostructure carried by said arms for compensating for environmental effects.

Claim 19 (previously presented): The force sensor device according to claim 18, wherein each of said two arms is formed with a cusp carrying said first nanostructure and with a cusp carrying said second nanostructure.

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Claim 20 (previously presented): The force sensor device according to claim 18, which further comprises an insulation formed on at least one of said arms for electrically separating said nanostructures.

Claim 21 (previously presented): The force sensor device according to claim 18, wherein said second nanostructure is a nanotube, a carbon nanotube, or a quasi one-dimensional nanostructure.

Claim 22 (new): The force sensor device according to claim 18, wherein said first nanostructure is a structure selected from the group consisting of a nanotube, a carbon nanotube, a boron-nitride nanotube, and a quasi one-dimensional nanostructure.

Claim 23 (new): The force sensor device according to claim 18, wherein the electrical property is a conductivity of said nanostructure.

Claim 24 (new): The force sensor device according to claim 18, wherein said support is a U-shaped support.